REMARKS

Claims 76, 81, 97 and 98 are pending in the application.

The pending claims stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Examiner indicates that the claimed subject matter was not described in the specification in such a way as to enable one skilled in the art to which it pertains or with which it is most nearly connected to make and/or use the invention.

Independent claim 35 recites carbon-containing sidewall spacers consisting essentially of silicon, oxygen and from about 2% to about 20% carbon, by weight. The Examiner states that the instant specification fails to support the recited "consisting essentially of a material having silicon, oxygen and from about 2% to about 20% carbon". The Examiner bases this contention upon arguments presented in applicant's response to the previous action and specifically indicates that applicant's argument is that "Yau cannot produce a film consisting essentially of a material having silicon, oxygen and from about 2% to about 20% carbon, by weight", and presents reasoning based on applicant's arguments in the previous response which is reiterated at page 2 of the present Action. Applicant notes that the Examiner's position is based upon an improper reading of applicant's arguments and improper consideration of such arguments out of the context presented in applicant's response.

In applicant's previous response applicant argues that the oxidized organo-silane layers disclosed by Yau do not suggest the material consisting essentially of silicon, oxygen and from about 2 to about 20% carbon. The paragraph of the response relied upon by the Examiner is reiterated at forth at page 2 of the present Action. Within such

paragraph, Applicant's statement that "nowhere does Yau indicate or suggest utilization of materials other than hydrogen-containing materials" is made with specific reference to Yau's disclosed utilization of oxidized organo-silane layers. However, at page 3 of the present Action, the Examiner indicates consideration of such statement with respect to "hydrogen-containing precursor materials". Applicant's argument as set forth in the previous response does not refer to the precursor materials and the Examiner's reading and application of such argument is therefore improper.

Directing attention to Yau at column 4, lines 41-44 and 54-59 (which is cited by applicant within the argument previously presented), applicant notes that Yau indicates a layer of oxidized organo-silane material "deposited by oxidation of organo-silane compound which does not fully oxidize". Yau indicates that some organo-functional groups remain in the oxidized organo-silane layer. This disclosure further indicates that the organo groups can preferably be methyl or ethyl. All the disclosed organo groups contain hydrogen. Accordingly, the Yau disclosure specifically indicates a layer of oxidized organo-silane material which comprises retained organo groups which include hydrogen. As indicated in applicant's previous response, such disclosure does not suggest utilization of materials other than hydrogen-containing materials in the oxidized organo-silane layers.

The Examiner's application of the applicant's argument to hydrogen-containing precursors rather than to the oxidized organo-silane layers as set forth by the Applicant is improper. Accordingly, the contention that such argument contradicts the teachings of applicant's specification is also improper. Applicant therefore respectfully requests withdrawal of the present § 112 rejection based upon such improper contention in the Examiner's next action.

Claims 76, 81, 97 and 98 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over applicant's admitted prior art (AAPA) as combined with McAnally, U.S. Patent No. 6,136,700 and Yau, U.S. Patent No. 6,054,379. The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claims 76, 81, 97 and 98 are allowable over AAPA, McAnally and Yau for at least the reason that the references, individually or as combined, fail to disclose or suggest each and every limitation in any of those claims and fail to provide a reasonable expectation of success.

Independent claim 76 recites a DRAM construction comprising a pair of wordlines having sidewall edges and carbon-containing sidewall spacers extending along the sidewall edges of the wordlines. The carbon containing sidewall spacers consist essentially of silicon, oxygen and from about 2% to about 20% carbon, by weight. Claim 76 further recites an insulative layer in contact with at least one of the carbon-comprising sidewall spacers and a first storage node, a second storage and a bit line contact in physical contact with one or more of the carbon-containing sidewall spacers. As acknowledged by the Examiner at page 5 of the present Action, AAPA does not disclose or suggest sidewall spacer material comprising carbon or the recited insulating layer being in contact with a carbon-containing sidewall spacer. Further, AAPA does not disclose or suggest the recited first storage node, second storage node and bit line contact each being in physical contact with one or more carbon-containing sidewall spacers.

McAnally discloses a single self-aligned contact 122 between wordlines having

sidewall spacers 108 (Fig. 3 and col. 6, ll. 25-33). McAnally further discloses that carbon can be incorporated into sidewall spacers 108 by implantation subsequent to deposition to form carbon-rich oxide or carbon-rich nitride with the term "carbon rich" defined as possessing "some carbon" (col. 5, ll. 16-18 and col. 6, ll. 34-37). The disclosure by McAnally of materials comprising "some carbon" does not disclose or suggest the claim 76 recited sidewall spacers consisting essentially of silicon, oxygen and from about 2% to about 20% carbon, by weight. Further, the disclosure of implanting "some carbon" does not suggest methods for achieving the claim 76 recited sidewall spacers consisting essentially of silicon, oxygen, and from about 2% to about 20% carbon, by weight. As combined with applicant's admitted prior art, the McAnally disclosure of a single contact structure does not disclose or suggest each of bit line contact, a second storage node and first storage node being in physical contact with one or more carbon-containing sidewall spacers.

As indicated above, Yau discloses oxidized organo-silane layers which comprise organo-silane material which is not completely oxidized and which contains organo groups preferably methyl or ethyl (col. 4, ll. 41-44). As combined with AAPA and McAnally, the Yau disclosure of organo-silane layers does not contribute toward suggesting the claim 76 recited carbon-containing sidewall spacers consisting essentially of silicon, oxygen and from about 2% to about 20% carbon, by weight. Nor does the Yau organo-silane layer contribute toward suggesting the claim 76 recited insulative layer, first layer and second storage node and bit line contacts in physical contact with one or more carbon-containing sidewall spacers which consist essentially of silicon, oxygen and from about 2% to about 20% carbon, by weight. Accordingly, independent claim 76 is not rendered obvious by the

cited combinations of AAPA, McAnally and Yau and is allowable over these references.

Dependent claims 81, 97 and 98 are allowable over the cited combinations of AAPA, McAnally and Yau for at least the reason that they depend from allowable base claim 76.

For the reasons discussed above, claims 76, 81, 97 and 98 are allowable. Accordingly, applicant respectfully requests formal allowance of such pending claims in the Examiner's next action.

Respectfully submitted,

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